




Multisystem Inflammatory Syndrome in Children Associated with COVID 19 Treated with Oral Steroid

Mukesh Kumar Jain¹ · Sanjay Kumar Sahu¹ · Jyoti Ranjan Behera¹  · Sibabratta Patnaik¹

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To the Editor: Multisystem inflammatory syndrome in children (MIS-C) have been reported from various parts of the globe including India sharing clinical features with Kawasaki disease (KD) and toxic shock syndrome (TSS) [1]. World Health Organisation (WHO) and Centre for Disease Control and Prevention (CDC) have laid down case defining criteria for MIS-C separately [2, 3]. Antibody dependent enhancement (ADE) is the proposed pathogenesis leading to cytokine storm. Intravenous immunoglobulin (IVIG) with or without aspirin and Methyl prednisolone are being advocated for its management [4]. Here we report a case of MIS-C managed by oral steroid only with complete recovery.

A 3-y-old male presented with fever and urticarial rashes for 4 d, loose stool for 2 d with facial puffiness, non purulent bilateral bulbar conjunctivitis and edema of hands and feet. Vitals and systemic examinations were normal. He was admitted as a case of urticaria with angioedema keeping scrub typhus, KD as other differential diagnosis. There was neutrophilic leukocytosis with lymphopenia, normal eosinophils, thrombocytosis and high ESR. Biochemical investigations revealed C-reactive protein 192 mg/dl (Normal < 6), serum sodium 121 mmol/L (Normal-135–145), serum albumin 2.4 g/dl (Normal: 4–6) with normal liver and renal function. Echocardiography was normal. Scrub serology was negative. He was managed with antibiotics, antihistaminics, antipyretics and oral prednisolone at 1 mg/kg in 2 divided doses. Urine culture and blood culture were sterile.

In view of the ongoing pandemic and features suggesting MIS-C, RT-PCR was sent which was positive for SARS CoV2. D-dimer was high with normal ferritin. Hence diagnosed as MIS-C, meeting all 6 WHO criteria [2]. By the time

diagnosis was made, child had dramatic clinical improvement. Hence oral steroid was continued. Inflammatory and biochemical parameters normalized on day 5. Child was discharged on day 7 with oral steroid for 2 wks.

As the pandemic is growing exponentially, all pediatricians should be aware of MIS-C, which will help in prompt diagnosis and management. Treatment options are IVIG, intravenous steroids and biologics like tocilizumab among which IVIG being the preferred one. Oral steroids may be considered as a treatment option in milder forms (without features of shock or cardiac involvement) but require more extensive trials before recommendation.

Compliance with Ethical Standards

Conflict of Interest None.

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✉ Jyoti Ranjan Behera
dr.jyoti2011@gmail.com

¹ Department of Pediatrics, Kalinga Institute of Medical Sciences, KIIT University, Bhubaneswar 751024, Odisha, India